

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-8068

Goodrich Carbon Products

SUMMARY

The Goodrich Corporation operates a carbon brake manufacturing facility in Spokane, Washington. The facility consists of the following areas: Administration Building, Utility Building, Shipping Area, Furnace Deck Building (consisting of 12 vapor disposition furnace vessels (CVD furnaces), Machine shop Building, Single Step Carbonization Building (consisting of 1 carbonization vessels (SSC furnace)), and Textile Building. The facility's approximate total average water usage per day is 95,000 gallons per day. Out of this total water use only approximately average of 40,000 gallons per day is discharge to the Spokane Wastewater Treatment Facility. This discharge consists of a combination of domestic sewage, two DA tanks, discharges from cooling water and receiver tank overflows, Single Step Carbonization steam trap drains, pump seal leaks, sumps, boiler blow down, cooling towers non-contact blow down, swamp coolers blow down, furnace and SSC sump wash water, air compressor condensate, water softener and sand filter backwash, and gas knock out pots condensate.

During the history of the previous permit, the Permittee has remained in compliance based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department.

In 2001, the Department of Ecology required Goodrich Carbon Products to prepare and submit a Water Recovery Feasibility Engineering Report. Unifield Engineering, Inc was hired as the consultant to complete the report. The final report was completed in June 2003 and it looked at ways the company could reduce and reuse/recycle their wastewater. Figure #3 shows the current and future water and sewage flows. Figure #4 briefly discussed and summarizes the Water Recovery Feasibility Engineering Report. This report recommend Alternative #3 (Slip Stream) but it could not be complete without financial support from outside sources and the percent payback is minus 3 percent. It is very close to being feasible and because of this, the company still should look at alternatives to reduce their water use and waste water discharge. This reduction of these streams would probably help to reduce some of the hydraulic loading on the City of Spokane's Sewer System. Some of this reduction of water use and waste water discharge can probably come in the form of Best Management Procedure and/or change of chemicals used in their boiler and cooling systems.

Currently, there are no treatment processes. During this permit cycle, Goodrich will evaluate different treatment processes and best management practices. This evaluation will determine what changes in wastewater treatment or facility operation may be needed to protect the waters of the State and/or the City of Spokane Wastewater Treatment Facility. Thus, section S4 and S10 of the proposed discharge permit contains a compliance schedule requiring an evaluation of all known, available and reasonable means to prevent and control the pollution of the waters of the State of Washington including the City's Wastewater Treatment Facility. Goodrich will implementing the recommendations of the engineering report and best management practices within one year after the approval of the engineering report.

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. **ST-8068**. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to City of Spokane Wastewater Treatment Plant. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D—Response to Comments.

<u>GENERAL INFORMATION</u>	
Applicant	Goodrich Carbon Products
Facility Name and Address	Goodrich Carbon Products, 11135 West Westbow Road, Spokane, Washington 99224
Type of Facility:	SIC 3728 Manufacture of aircraft parts and auxiliary equipment
Facility Discharge Location	Latitude: 47° 35' 32" N Longitude: 117° 33' 50" W.
Treatment Plant Receiving Discharge	City of Spokane Wastewater Treatment Plant, 4401 N. Aubrey L. White Parkway, River Mile 67.4, Spokane, Washington 99205
Contact at Facility	Jim Monroe, 509-744-6035
Responsible Official	Name: David A. Viron Title: Director of Operation Address: 11135 West Westbow Road, PO Box 19210, Spokane, Washington 99219-9210 Telephone #: 509-744-6008 FAX # 509-624-1088

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

The Goodrich Corporation operates a carbon brake manufacturing facility in Spokane, Washington. The facility consists of the following areas: Administration Building, Utility Building, Shipping Area, Furnace Deck Building (consisting of 12 vapor disposition furnace vessels (CVD furnaces), Machine shop Building, Single Step Carbonization Building (consisting of 1 carbonization vessels (SSC furnace)), and Textile Building. See building layout location of each area. The facility's approximate total average water usage per day is 95,000 gallons per day(gpd). The total water usage consists of approximately 62,000 gpd from the City of Spokane and 33,000 gpd from ground water. This ground water is from the French drains located under the Furnace Deck Building. The water level is very shallow in this area and water needs to be pumped out so the Furnace Deck Building does not flood.

Out of the total water use (95,000 gpd) only approximately average of 40,000 gallons per day is discharge to the Spokane Wastewater Treatment Facility. This discharge consists of a combination of domestic sewage, two DA tanks, discharges from cooling water and receiver tank overflows, Single Step Carbonization steam trap drains, pump seal leaks, sumps, boiler blow down, cooling towers non-contact blow down, swamp coolers blow down, furnace and SSC sump wash water, air compressor condensate, water softener and sand filter backwash, and gas knock out pots condensate. All the wastewater discharges are at the man hole between the Utility building (south side) and the Administration building (north side). However, this discharge has a potential to cause interference and/or pass thru at the Spokane Wastewater Treatment Facility. Therefore, the facility is a Significant Industrial User because of the high volume of discharge to the sewer system. Additionally, there is no process in this facility that would subject the discharge to Categorical Pretreatment Standards.

HISTORY

The plant was built in 1998. The buildings completed in Phase I of construction included Utility building, administrative office, furnace building, machine shop and textile buildings. This operations equipment at this time included approximately 6 CVD furnaces and 1 SSC furnace. In 1999, the plant expanded the furnace building and machine shop. This was phase II. In year 2003, Phase II is completed with all of the operations equipment being installed that includes 12 CVD furnaces, 5 boilers, 4 water tower coolers, 1 SSC furnace. The company is looking at Phase III, which would include an expansion of the Machine Shop building, and adding 2 water tower coolers, 1 boiler, 6 CVD furnaces, and 2 SSC furnaces.

INDUSTRIAL PROCESSES

The facility manufactures aircraft carbon brakes. Last year, the company produced over 240,000 pounds of carbon brakes. The plant is currently operating 24 hours a day – 7 days a week. The facility receives polyacrylonitrile fiber (PAN fiber) and manufactures it into aircraft carbon a proprietary process using textile, furnace, and machining process. The fiber is combined to form the “brakes pads.” This occurs in the textile building. Next, the pads are put into the SSC furnace, and then into CVD Furnaces. These furnaces are jacketed and water-cooled by an open circulating cooling water system. Furnace vacuum in the CVD process is developed by steam charge ejectors. Eduction steam is condensed in non-contacting condensers, which reject heat to

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circulating cooling water system. Evaporation cooling tower remove heat from circulating cooling water. Then the process condensate has oil removed and is returned to deaerators as boiler feed water. As is common for circulating cooling water and boiler condensate system, blow down of process water is controlled by conductivity. At high conductivity conditions, process water is rejected to the sewers and make-up water is added to the system. Ion exchange softening pretreatment is applied to boiler makeup. Also a portion of the cooling tower make-up is supplied by facility groundwater collection sumps and pumped directly into the cooling tower reservoirs. The remaining cooling tower makeup is direct form the city water supply header and not pretreated. After CVD process, the product is machined and inspected. Then shipped to the customer. Attached are the current diagrams of the industry process (Figure #1), sewer outfall(Figure #2), and basic flow diagram(Figure #3) of current and future water and wastewater use.

TREATMENT PROCESSES

Currently, there is no treatment processes. During this permit cycle, Goodrich will evaluate different treatment processes and best management practices. See proposed permit condition S4 C. and S10 for further information.

PERMIT STATUS

The previous temporary permit for this facility was issued on February 8, 1999.

An application for permit renewal was submitted to the Department on May 29, 2003 and accepted by the Department on May 29, 2003.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on July 30, 2003. A compliance inspection without sampling was conducted on March 12, 2003.

During the history of the previous permit, the Permittee has remained in compliance based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department.

In 2001, the Department of Ecology required Goodrich Carbon Products to prepare and submit a Water Recovery Feasibility Engineering Report. Unifield Engineering, Inc was hired as the consultant to complete the report. The final report was completed in June 2003 and it looked at ways the company could reduce and reuse/recycle their wastewater. Figure #3 shows the current and future water and sewage flows. Figure #4 briefly discussed and summarizes the Water Recovery Feasibility Engineering Report. This report recommended Alternative #3 (Slip Stream) but it could not be complete without financial support from an outside source. However, the company still should look at alternatives to reduce their water use and waste water discharge. This reduction would probably help reduce the hydraulic loading on the City of Spokane's Sewer System.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The proposed wastewater discharge is characterized for the following parameters:

Parameter	Concentration
pH	10.96 s.u.
Copper	0.137 mg/l
Zinc	0.38 mg/l
Fats, Oil, and Grease (FOG)	10.7 mg/l

SEPA COMPLIANCE

The company completed the SEPA checklist in 1998 for the building and operation of the facility. In that same year, the company received their letter of non-significance determination from the County of Spokane.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The minimum requirements to demonstrate compliance with the AKART standard and specific design criteria for this facility will be determined in the engineering report during this permitting cycle.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern.

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

In order to protect City of Spokane Wastewater Treatment Plant from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits established by City of Spokane Wastewater Treatment Plant and codified in ordinance. Applicable limits for this discharge include the following: Fats, Oil, and Grease <100mg/l; Copper <1.4 mg/l; Zinc <7.47 mg/l; and pH 5 to 12 s.u.

Pollutant concentrations in the proposed discharge with technology-based controls in place will not cause problems at the receiving POTW such as interference, pass-through or hazardous exposure to POTW workers nor will it result in unacceptable pollutant levels in the POTW's sludge.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S1 and S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Monitoring for flow, BOD, TSS, TDS, PH, Temperature, Conductivity, Copper, Zinc, FOG, BTEX, Magnesium, Potassium, Calcium, and Total Metals are being required to further characterize the effluent. These pollutant(s) could have a significant impact on the receiving POTW.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-216-110 and 40 CFR 403.12 (e),(g), and (h)).

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment. The proposed permit requires submission of an O&M manual for the entire wastewater system.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under authority of RCW 90.48.080, that the Permittee develop and submit to the Department a solid waste plan to prevent solid waste from causing pollution of waters of the state. The plan must also be submitted to the local solid waste permitting agency for approval.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to

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require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The proposed permit requires the Permittee to develop and implement a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

SLUG DISCHARGE CONTROL PLAN

The Department has determined that the Permittee has the potential for a batch discharge or a spill that could adversely effect the POTW therefore a slug discharge control plan is required (40 CFR 403.8 (f)).

COMPLIANCE SCHEDULE FOR MEETING PRETREATMENT STANDARDS

Currently, the facility has no pretreatment system and has not looked at AKART to determine what type of system is needed to protect the waters of the State and/or Spokane Treatment Facility. Thus, a schedule has been developed in condition S10 of the Permit to evaluate. If needed, a wastewater treatment facility will be designed and constructed to meet pretreatment Standards. With this schedule, approved wastewater treatment system will be installed by March 2006.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

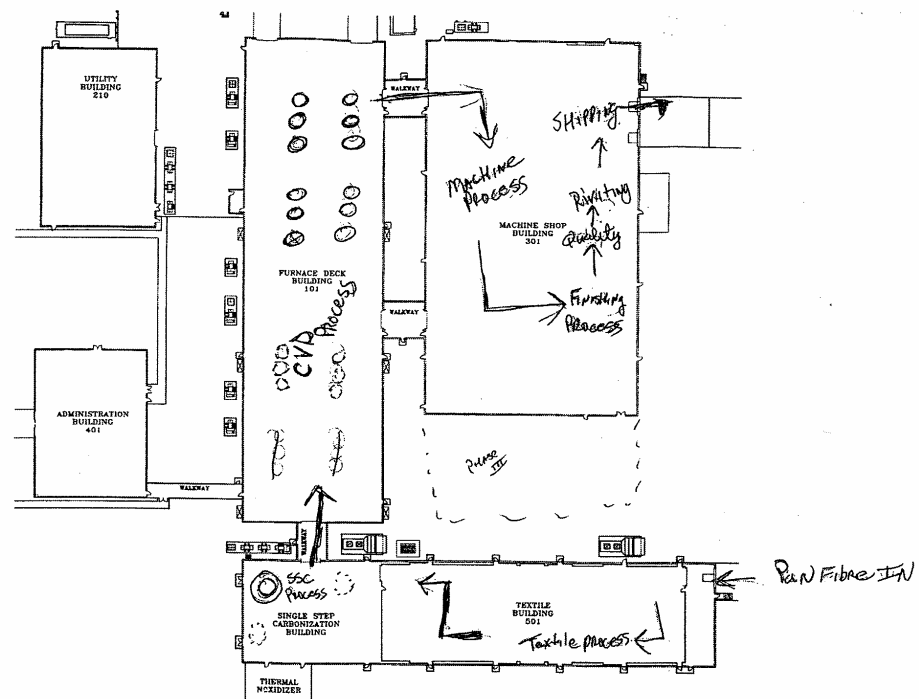
Washington State Department of Ecology.

Laws and Regulations(<http://www.ecy.wa.gov/laws-rules/index.html>)

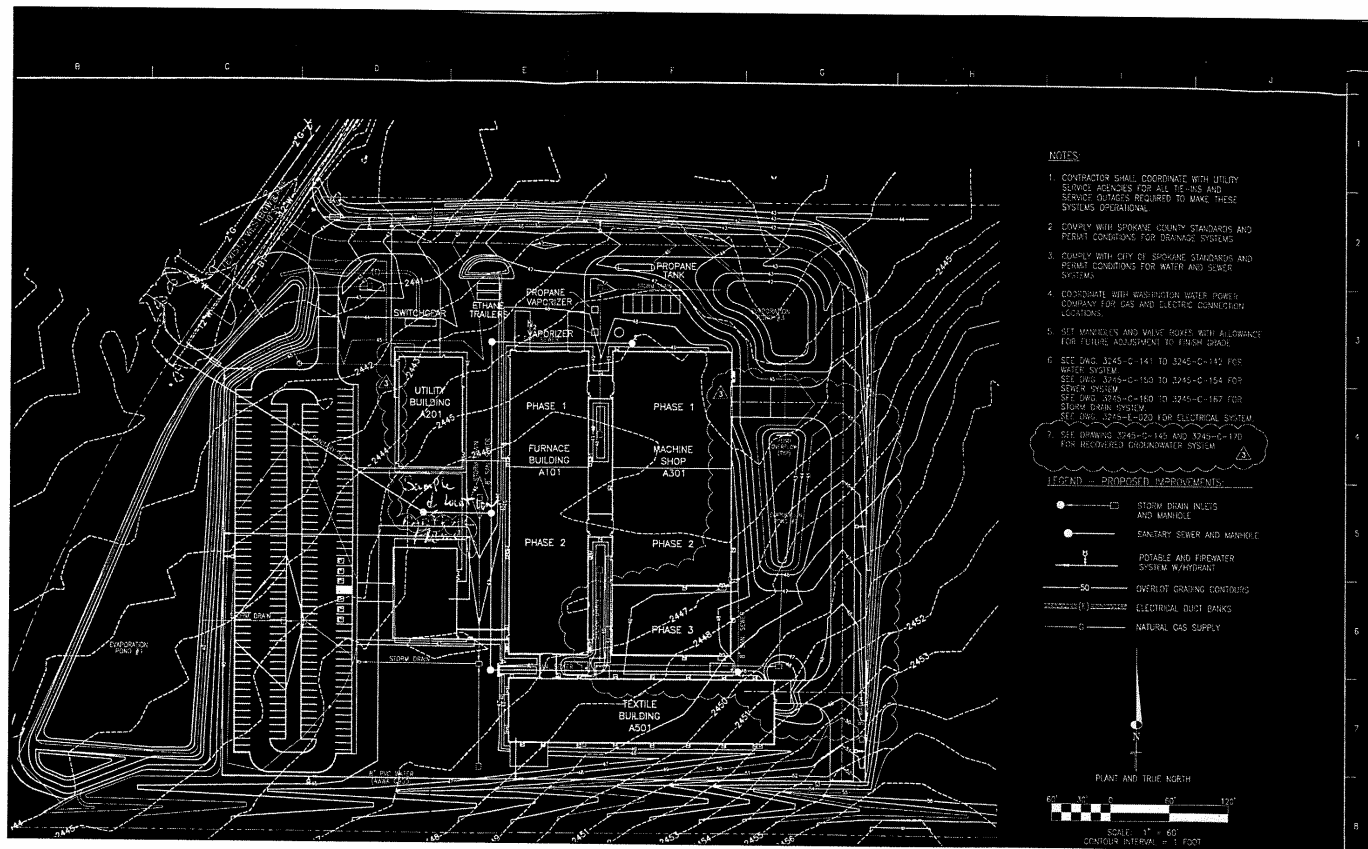
Permit and Wastewater Related Information

(<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>)

Process (Figure #1)



Plant Layout w/sewer lines (Figure #2)



(Figure #3)
WATER Recovery Feasibility Engineering Report - Rev 7, JUNE 12, 2003

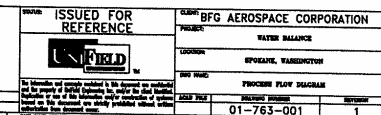


Figure #4- Summary of Water Recovery Feasibility Engineering Report

The company is currently discharging an average of 40,000 gallons per day at its current production levels. However, if their business (manufacturing aircraft carbon brakes) grows, the facility will have to expand and Goodrich already has plans for it—called Phase III. In this expansion, the company would discharge a total of approximately 110,000 gallons per day (gpd) of wastewater. The Feasibility Report looked at this level of discharge to the sewer. The report considered reduction and/or reuse/recycle of wastewater from their boiler system, building mechanical/ sanitary systems wastewater, and cooling water system. See attached diagram for the overall basic flow diagram of the plant for water and wastewater. After reviewing these three areas, it was concluded that the best area for reduce/recycle wastewater was in the cooling water system.

In the cooling water system, there were four alternatives considered: 1) Reverse Osmosis with Pretreatment, 2) Dual Reverse Osmosis Water Pretreatment, 3) Slip Stream Reverse Osmosis Water Treatment, and 4) Blow Down Distillation. The following charts show the water usage of each alternative and Economic Feasibility Evaluation:

Projected Cooling Tower Water Usage (Cooling Water system)				
	City Water Make-Up (GPM)	City Water Make-Up (GPD)	Sewer Discharge (GPM)	Sewer Discharge (GPD)
Existing Operations	27	38,880	15	21,600
Future Build-Out Operations	127	182,880	45	64,800
Alternative #1- Single R.O.	142	204,480	60	86,400
Alternative #2- Dual R.O.	112	161,280	30	43,200
Alternative #3- Slip Stream	102	146,880	20	28,800
Alternative #4- Distillation	92	132,480	10	14,400

Economic Feasibility Evaluation						
	Capital Cost	Annual Operating Cost	Annual Water Savings	Annual Cost Savings	% Payback	Simple Payback (yrs)
Alternative #1	825,000	82,000	(24,846)	(106,846)	-13%	-
Alternative #2	930,000	122,500	24,846	(97,654)	-11%	-
Alternative #3	675,000	64,000	41,409	(22,591)	-3%	-
Alternative #4	3,540,000	2,292,000	57,973	(2,234,027)	-63%	-

As one can see from the above tables, Alternative 3 is the best option for water reduction and reuse/recycle. However, the company does not have a return on their investment in 5 years. Thus, this is not feasibility for them unless they have outside sources to financial it for them. But, the %payback is -3%. It is very close to being feasible. With this feasibility, the company still should look at alternatives to reduce their water use and waste water discharge. This reduction of these streams would probably help to reduce some on the hydraulic loading of the City of Spokane's Sewer System. Some of this reduction of water use and waste water discharge can probably come in the form of Best Management Procedure and/or change of chemicals used in their boiler and cooling systems.

Also, the company would save approximately 36,000 gallons per day of city make-up water and 36,000 gallons per day less of wastewater to sewer and capacity at the treatment facility. Additionally, an average house in Spokane uses 6,000 gallons per month (200 gallons per day). Thus, this savings of water and capacity to the treatment facility is approximately 180 homes or at least 1 more business that would discharge up to 36,000 gallons per day.

APPENDICES

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on September 10, 2003 and September 17, 2003 in the Spokesman Review to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on November 20, 2003 in the Spokesman-Review to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Eastern Regional Office
4601 North Monroe Street
Spokane, WA 99205-1295

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (509) 329-3400, or by writing to the address listed above.

This permit was written by Scott Mallery, P.E.

APPENDIX B—GLOSSARY

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring –Uninterrupted, unless otherwise noted in the permit.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample—A single sample or measurement taken at a specific time or over a short period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through— A discharge which exits the POTW into waters of the-State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase

in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C—TECHNICAL CALCULATIONS

APPENDIX D—RESPONSE TO COMMENTS